

A Synopsis of the Genera of the *Chalcididæ*, Subfamily *Eucharinæ*; with Descriptions of several new Genera and Species of *Chalcididæ* and *Tenthredinidæ*. By W. F. KIRBY, Assistant in the Zoological Department, British Museum. (Communicated by Dr. J. MURIE, F.L.S.)

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(PLATE I.)

*Synopsis of the Genera of Eucharinæ.*

I have here attempted to give a generic revision of the subfamily *Eucharinæ*, which includes some of the most beautiful and remarkable species of the *Chalcididæ*. With few exceptions, the species are extra-European, and appear to be most numerous in Tropical America and Australia. The species in the British Museum represent at least fifteen well-marked genera, of which only ten have been previously characterized. I have selected only the most salient characters of each genus; for minute and detailed characters are unnecessary in the present imperfect state of our knowledge of the subfamily.

The *Eucharinæ* are large, strongly-sculptured, metallic-coloured *Chalcididæ*; the abdomen is always more or less petiolated, and is frequently raised and compressed, giving the insects some resemblance to the *Cynipidæ*. From the *Perilampinæ*, to which they have some resemblance, they may be distinguished by the longer petiole, the absence of the stigmatic nervule, &c.

*List of Genera of Eucharinæ, with indication of Types, and characters of new Genera.*

1. EUCHARIS, *Latr.*,

*Hist. Nat. Crust. Ins.* xiii. p. 210 (1805).

Type, *CYNIPS ADSCENDENS*, *Fabr.*

*Cynips adscendens*, *Fabr. Mant. Ins.* i. p. 251. n. 1 (1787).

*Eucharis Kollari*, *Förs. Verh. Ver. Rheinl.* xvi. p. 91. n. 25 (1859).

Details: *Westw. Thes. Ent. Oxon.* pl. xxviii. f. 15, a-d (1874).

*Hab.* Europe.

Panzer (*Faun. Germ.* Heft 88, pl. 10) represents the legs as yellow, saying only "antennæ tarsorumque ungulæ nigræ;" and

his insect thus appears to differ from that of Fabricius, who says "pedes pallide femoribus basi nigris." Förster regarded them as distinct; and as Fabricius merely gave a brief diagnosis in his *Syst. Piez.* p. 157, and this apparently founded on Panzer's figure, Förster was not unnaturally misled into redescribing and renaming the Fabrician instead of the Panzerian insect.

## 2. ORASEMA, Cameron,

*Biol. Centr.-Amer., Hym.* p. 104 (1884).

Type, ORASEMA FLAVIPES, *Cam.*

*Orasema stramineipes*, *Cam. l. c.* p. 105 (1884).

*Orasema flavipes*, *Cam. op. cit.* pl. v. figs. 20, 20 *a-c*, pl. vi. figs. 18, 18 *a-e* (1884).

*Hab.* Panama.

There seems to be some error about this species, as the description does not well agree with the figure. Judging by the figure, I would refer *Eucharis festiva*, Fabr., *E. rapo*, Walk., and *Schizaspidia maculata*, Westw., to this genus. All these are South-American insects.

## 3. TRICORYNA, gen. nov.

*Male.* Antennæ 11-jointed, thick, moniliform, striated and finely pubescent; scape short; second joint short and transverse; third joint four times as long as broad, much thickened beyond the middle; fourth narrower, longer than broad; the remainder gradually decreasing in length, but not in width, to the ninth; the tenth shorter and narrower than the ninth, and the eleventh minute. Head and thorax coarsely punctured, moderately pubescent; scutellum gibbous, but not produced; petiole longitudinally striated, moderately broad, about two thirds as long as the abdomen. Abdomen about four times as long as broad, tapering at both ends, and rather finely punctured; first joint of tarsi very thick, and much longer than all the rest put together.

Type, EUCHARIS IELLO, *Walk.*

*Eucharis Iello*, *Walk. Mon. Chalc.* ii. p. 12 (1839).

Details: *Holiday, Entomol.* i. pl. P. figs. 3, 3 *a, b* (1842).

*Hab.* Tasmania.

## 4. METAGEA, gen. nov.

*Male.* Antennæ nearly naked; the third joint four times as long as broad, and gradually thickened to the extremity; the remainder thickened at the extremity, and gradually decreasing in length to the eighth, which is only slightly longer than broad; the rest broken off; petiole short. First joint of the tarsi as long or longer than all the rest together, but not thickened. Abdomen obtuse at tip.

Type, EUCHARIS ZALATES, *Walk.*

*Eucharis Zalates*, *Walk. Mon. Chalc.* ii. p. 13 (1839).

Details: *Haliday, Entomol.* i. pl. P. figs. 4, 4 a-c (1842).

*Hab.* Australia.

5. PSILOGASTER, *Blanch.*,

*Hist. Anim. Art.* iii. p. 260 (1840); ? *Brullé, Ins. Hym.* iv. p. 573 (1846).

Type, PSILOGASTER CUPREUS, *Blanch.*

*Psilogaster cupreus*, *Blanch. l. c.* (1842).

*Hab.* Egypt.

Brullé has figured a Tasmanian insect to represent this genus (*P. pallipes*, Brullé, *l. c.* pl. xxxix. figs. 1 & 2), and the British Museum possesses many species congeneric with this from Australia and Tasmania. It is, however, very probable that the Egyptian insect may prove to be generically distinct from these, in which case the Australian group will require a new name.

## 6. CHALCURA, gen. nov.

*Male.* Antennæ pubescent, 12-jointed; joints 3-11 throwing off a long pubescent ramus from the extremity on the outside. Scutellum gibbous, unarmed. Petiole moderately stout, about two thirds as long as the conical abdomen, and longitudinally striated.

*Female* with scarcely the rudiments of the antennal rami. Petiole short and broad. Abdomen oval. First joint of tarsi nearly as long as all the remainder, but not expanded.

Type, EUCHARIS DEPRIVATA, *Walk.*

*Eucharis deprivata*, *Walk. Ann. & Mag. N. H.* (3) vi. p. 359 (1860); *Westw. Thes. Ent. Oxon.* p. 155, pl. xxviii. fig. 6 (1874).

*Hab.* Ceylon.

## 7. RHIPIPALLUS, gen. nov.

*Male.* Antennæ pubescent, 13-jointed, with short joints; joints 4-12 throwing off long pubescent rami (thickened at the tips) from the outside, and shorter ones from the inside. Scutellum gibbous, unarmed. Petiole moderately slender, as long as the oval and moderately raised abdomen.

Type, EUCCHARIS VOLUSUS, *Walk.*

*Eucharis volusus*, *Walk. Mon. Chalc.* ii. p. 9 (1839).

Details: *Haliday, Entomol.* i. pl. P. figs. 1, 1 a-d (1842).

*Hab.* Australia.

8. STILBULA, *Spin.*,

*Ann. Mus.* xvii. p. 150 (1811).

Type, ICHNEUMON CYNIPIFORMIS, *Rossi.*

*Ichneumon cynipiformis* (*sic*), *Rossi, Mant. Ins.* p. 125, pl. vi. fig. G (1792).

*Hab.* S. Europe.

9. SCHIZASPIDIA, *Westw.*,

*P. Z. S.* 1835, p. 69.

Type, SCHIZASPIDIA FURCIFERA, *Westw.*

*Schizaspidia furcifera*, *Westw. l. c.* (1835); *Thes. Ent. Oxon.* p. 151, pl. xxviii. fig. 2 (1874).

*Hab.* India.

## 10. TETRAMELIA, gen. nov.

*Male.* Antennæ 12-jointed; joints 3-11 each throwing off a long pubescent ramus. Scutellum bidentate. Metathorax throwing off a stout horn-like process on each side, curving outwards horizontally nearly as far as the level of the petiole, which is slender and about as long as the height of the abdomen. The latter is of an irregular shape, elevated, compressed, and rather pointed in front, the first segment covering about half the abdomen.

Type, SCHIZASPIDIA PLAGIATA, *Walk.*

*Schizaspidia plagiata*, *Walk. Trans. Ent. Soc.* (3) i. p. 385 (1862); *Westw. Thes. Ent. Oxon.* p. 152, pl. xxviii. fig. 11 (1874).

*Hab.* Para.

11. LOPHYROCERA, *Cameron*,  
*Biol. Centr.-Amer., Hym.* p. 103 (1884).

Types, LOPHYROCERA STRAMINEIPES and L. NIGROMACULATA,  
*Cam.*

(1) *Lophyrocera stramineipes*, *Cam. l. c.* pl. v. figs. 18, 18 a (1884).

*Hab.* Panama.

(2) *Lophyrocera nigromaculata*, *Cam. l. c.* p. 104, pl. v. figs. 19, 19 a, b (1884).

*Hab.* Nicaragua.

12. KAPALA, *Cameron*,  
*Biol. Centr.-Amer., Hym.* p. 102 (1884).

*Chirocerus*, *Brullé (nec Latr.)*, *Ins. Hym.* iv. p. 571 (1846).

Type, EUCHARIS FURCATA, *Fabr.*

*Eucharis furcata* and *E. flabellata*, *Fabr. Syst. Piez.* p. 158 (1804).

*Thoracantha furcata*, *Haliday*, *Entomol.* i. pl. P. figs. 2, 2 a-c (1842).

*Kapala furcata*, *Cam. l. c.* p. 103, pl. v. figs. 17, 17 a-d (1884).

*Hab.* South and Central America.

There are several species of this genus, from different parts of South America, in the British Museum. *Chirocerus furcatus*, *Brullé* (*Ins. Hym.* pl. xxxviii. figs. 5, 5 a, b, 1846), seems to me to agree better with *Thoracantha atrata*, *Walk.* (*Trans. Ent. Soc.* (3) i. p. 383, 1862), than with the Fabrician species.

13. THORACANTHA, *Latr.*,  
*Cuv. Règne Anim.* ed. 2, v. p. 297 (1829).

*Galearia*, *Brullé*, *Spec. Hym.* iv. p. 572 (1846).

Type, THORACANTHA LATREILLII, *Guér.*

*Thoracantha Latreillii*, *Guér. Leon. Règne Anim., Ins.* p. 415, pl. lxxvii. fig. 8 (1829-44).

*Thoracantha Latreillii vel coleopteroides*, *Waterh. Trans. Ent. Soc.* ii. p. 196, pl. xvii. fig. 3 (1839).

*Galearia violacea*, *Brullé, l. c.* pl. xxxviii. figs. 6, 6 a, b (1846).

*Hab.* Brazil.

Although *Latreille* specified no type, yet his description clearly indicates this genus; moreover, *T. Latreillii* was figured and described as a *Thoracantha* before any other species to which the generic name could apply.



14. LIRATA, *Cameron*,

*Biol. Centr.-Amer., Hym.* p. 102 (1884).

Type, LIRATA LUTEOGASTER, *Cam.*

*Lirata luteogaster, Cam. l. c.* pl. v. figs. 16, 16 a (1884).

*Hab.* Panama.

15. UROMELIA, gen. nov.

*Thoracantha, Brullé (nec Latr.), Ins. Hym.* iv. p. 572 (1846).

Type, THORACANTHA STRIATA, *Perty.*

*Thoracantha striata, Perty, Del. Anim. Art.* p. 135, pl. xxviii. figs. 15, 16 (1834).

*Hab.* Amazons.

*Table of Genera of Eucharinæ.*

- A. Scutellum not bidentate.
  - B. Antennæ simple in male.
    - C. Antennæ moniliform.
      - D. Abdomen compressed, ascending ... 1. **Eucharis.**
      - DD. Abdomen not compressed, nor ascending.
        - E. First joint of tarsi much thickened ..... 3. **Tricoryna.**
        - EE. First joint of tarsi very long, but not thicker than the others ..... 4. **Metagea.**
    - CC. Antennæ not moniliform.
      - F. Joints of antennæ long ..... 5. **Psilogaster.**
      - FF. Joints of antennæ short ..... 2. **Orasema.**
  - BB. Antennæ ramose in male.
    - G. Antennæ ramose in male ..... 6. **Chalcura.**
    - GG. Antennæ biramose in male ..... 7. **Rhipipallus.**
- AA. Scutellum bidentate.
  - H. Scutellum of moderate size.
    - I. Antennæ simple in male ..... 8. **Stilbula.**
    - II. Antennæ ramose in male.
      - K. Metathorax unarmed ..... 9. **Schizaspidia.**
      - KK. Metathorax with a strong lateral projection.
        - L. Metathoracic processes curving downwards ..... 11. **Lophyrocera.**
        - LL. Metathoracic processes consisting of two diverging horizontal teeth ..... 10. **Tetramelia.**
  - HH. Scutellum often as long as the abdomen.
    - M. Scutellar processes covering the whole abdomen.
      - N. Scutellar processes very broad ..... 13. **Thoracantha.**
      - NN. Scutellar processes long, contiguous, and tapering to the extremity ..... 15. **Uromelia.**
    - MM. Scutellar processes long and slender, generally curving inwards towards the tips.
      - O. Third joint of antennæ as long as all the rest together ..... 14. **Lirata.**
      - OO. Third joint of antennæ not much longer than fourth ..... 12. **Kapala**

## TENTHREDINIDÆ.

## HYLOTOMINÆ.

## 1. HEMIDIANEURA CAMERONI. (Pl. I. fig. 10.)

Long. corp. 8 millim., exp. al. 20 millim.

*Female.* Head, antennæ, knees, tibiæ, tarsi, and abdomen (except base) black; thorax, base of abdomen, coxæ, trochanters, and femora (except tips) luteous; on the abdomen the five first ventral segments are luteous, but the first two dorsal segments only are wholly luteous, the sides of the third and fourth being clouded and shading into the deeper black of the following segments; wings purplish hyaline, with a strong smoky tinge, especially at the base.

*Hab.* Rio Grande do Sul (*Ithering*).

Not closely allied to any known species.

## SELANDRIINÆ.

## 2. SELANDRIA MERIDIONALIS. (Pl. I. fig. 12.)

Long. corp. 6 millim., exp. al. 17 millim.

*Female.* Inky black; mesothorax above and front of scutellum dull red, prothorax yellower; wings smoky hyaline, with blackish-brown nervures, and a black dot in the second submarginal cell.

*Hab.* Rio Grande do Sul.

## TENTHREDININÆ.

## 3. MACROPHYA (?) SAUNDERSI. (Pl. I. fig. 11.)

Long. corp. 11 millim., exp. al. 23 millim.

*Female.* Black; labrum, scutellum, a spot at the extremity of the hind coxæ, an oval spot on the side of the fifth and a round one on the side of the sixth segment yellow; coxæ otherwise black, four front femora and tibiæ yellowish red, the middle tibiæ just tipped with black; hind femora entirely red, except a small black spot at the extreme base; all the tarsi and the hind tibiæ black; wings iridescent hyaline, rather more clouded beyond the middle; nervures and stigma castaneous, the latter paler towards the base; lanceolate cell contracted.

Two specimens from Albania, from the late Sir S. E. Saunders's collection.

Allied to *M. femoralis* and *corallipes*, Eversm., in both which species the cell is subcontracted.

## CHALCIDIDÆ.

## CHALCIDINÆ.

4. TRICHOXENIA CINERARIA, *Walk.* (Pl. I. figs. 4, 5.)

Long. corp. 11 millim., exp. al. 18 millim.

*Male.* Black; antennæ very thick, with the second and third joints very short; scape red at the tip above; face clothed with silvery pubescence, shading into golden yellow above; thorax black, variolose; tegulæ black, a bright golden spot on each side at the base of the scutellum, and the sides of the metathorax fringed with golden hairs above; abdomen with the first segment black, variolose, its sides and extremity above, and the sides and upper surface of the remaining segments thickly clothed with bright golden hairs; abdomen black beneath; femora black, clothed with silvery hairs; tibiæ and tarsi with a reddish shade, and hind tibiæ clothed with yellow hairs; spines of the hind tarsi golden beneath; wings and general structure as in the female.

*Hab.* Australia (*Du Boulay*).

This beautiful insect, which strongly contrasts with the black female, has a striking general resemblance to some species of *Mutilla*; but it is worthy of note, first, that this resemblance is confined to the male, and, secondly, that the *Mutillæ* which it most resembles are not Australian species.

I am indebted to Signor P. Magretti for permitting me to describe the three following species, taken by him in the Soudan. All the other species in this paper are in the collection of the British Museum.

## 5. STOMATOCERAS MAGRETTII. (Pl. I. fig. 7.)

Long. corp. 9 millim.

*Female.* Black, variolose, with silvery hairs and down; antennæ—scape red, black at the tip; four following joints red, with short white pubescence, the rest black; third joint with a very distinct patch of white pubescence on the outside: tegulæ, stylus, and sides of first segment and under surface of abdomen shading into dull red; hind coxæ and last segment of abdomen before the stylus clothed with silvery hairs; legs black, shading into reddish, especially on the inner surface; middle femora somewhat thickened, all the tibiæ with a strong projecting spine beneath, and middle tibiæ armed with strong, stout, short bristles or spines, which are much



more distinct upon the tarsi; hind femora armed with three large obtuse teeth; wings hyaline, with two brown bands.

*Hab.* Kassala (*Magretti*).

Allied to *Halticella liberator*, Walk., from Natal.

In describing the genus *Stomatoceras*, I stated that the metathorax was unarmed. In the two species here described it is armed with two strong teeth on each side; and I should expect to find this to be the case in well-preserved specimens of the previously described species of the genus.

6. *STOMATOCERAS DIVERSICORNIS*. (Pl. I. fig. 8.)

Long. corp. 4 millim.

*Female*. Closely allied to *S. Magrettii*, of which at first I regarded it as only a small variety. Black, variolose, silvery pubescence very slight; scape of antennæ and joints 2, 3, 4, and 11 wholly red; the joints longer and slenderer in proportion than in *S. Magrettii*; four front femora black; tibiæ and tarsi red, the former with a black streak on the inner side; hind femora black and shining, the middle tooth distinct, the others merely undulations; a small red spot at the base; hind tibiæ black, red at the tip, hind tarsi red; all the claws black; tegulæ black; wings hyaline, fore wings with two brown bands; abdomen reddish beneath, along the sheath of the stylus, which is comparatively short; metathorax with two strong teeth on each side.

*Hab.* Kassala (*Magretti*).

7. *CHALCIS KASSALENSIS*. (Pl. I. fig. 9.)

Long. corp. 5 millim.

*Male*. Black; head, thorax, and scutellum moderately closely variolose, each pit with a setigerous depression in the centre; the interspaces finely punctured; abdomen very finely reticulose; scutellum edged behind with silvery-white hairs; lower orbits, cheeks, pleuræ, terminal abdominal segments, and coxæ more or less clothed with silvery-white pubescence (antennæ wanting); tegulæ ivory-white; coxæ black; four front femora black, tipped with white; four front tibiæ white, with a short black line on the inner side; all the tarsi white, with the claws black; hind femora thickened, denticulated beneath, red, with a large white spot at the tip; hind tibiæ white, with a reddish-brown ring at the base; wings hyaline.

*Hab.* Kassala (*Magretti*).

Allied to *C. amenocles* and *C. restituta*, Walk.

## EUCHARISSINÆ.

## SACCHARISSA, nov. gen.

Antennæ 18-jointed, scape rather long, second joint small, transverse, third and fourth simple, third longest, fifth to fifteenth short, with a series of long bristly fin-shaped projections on the upper surface, that on the fifth segment half the length of that on the sixth, the rest gradually decreasing until on joints 16-18 they almost disappear; scutellum with a long spear-shaped projection behind; head very narrow, transverse; ocelli arranged in a straight line; petiole short; abdomen short, ascending. (The abdomen is damaged in the type, and the figure may not therefore give the correct shape.)

Type, *Eucharis contingens*, Walk., from Borneo. (Pl. I. figs. 6, 6 a, 6 b.)

The species of *Eucharissa* are South-African insects, and their scutellum is unarmed.

## EUCHARINÆ.

## 8. RHIPIPALLUS CAMERONI. (Pl. I. figs. 2, 2 a.)

Long. corp. 5 millim.

*Male*. Coppery, rugose; head and metathorax greener, antennæ brown, the rami less thickened than in *R. volusus*, Walk.; legs flavo-testaceous; hind coxæ globular, very dark green; petiole purplish cupreous, longitudinally striated; abdomen flavo-testaceous, brown on the back at the base; wings yellowish hyaline, with yellowish and unusually distinct nervures; a large smoky cloud below the cubitus.

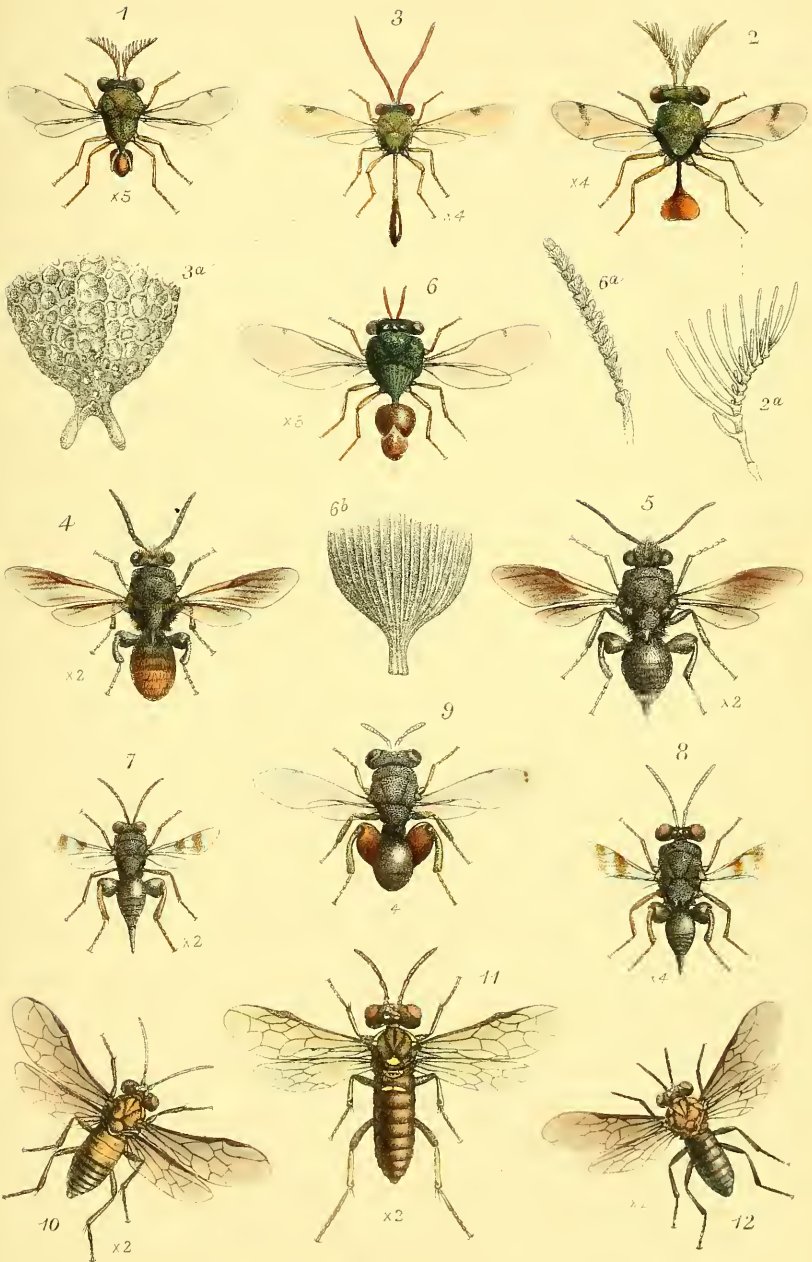
*Hab.* Australia (?) or Celebes (?).

This very fine species much resembles *Chalcera deprivata*, Walk., in size and appearance.

## DESCRIPTION OF PLATE I.

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| *Fig. 1. <i>Schizaspidia Murrayi</i> , Kirb., ♂. | Fig. 6a. <i>S. contingens</i> . Antenna.     |
| 2. <i>Rhipipallus Cameroni</i> , Kirb., ♂.       | 6b. Ditto. Scutellum.                        |
| 2a. Ditto. Antenna.                              | 7. <i>Stomatoceras Magrettii</i> , Kirb., ♀. |
| 3. <i>Stilbula cynipiformis</i> , Rossi, ♂.      | 8. <i>S. diversicornis</i> , Kirb., ♀.       |
| 3a. Ditto. Scutellum.                            | 9. <i>Chalcis Kassalæ</i> , Kirb., ♂.        |
| 4. <i>Trichoxenia cineraria</i> , Walk., ♂.      | 10. <i>Hemidianeura Cameroni</i> , Kirb., ♀. |
| 5. Ditto, ♀.                                     | 11. <i>Macrophya Saundersi</i> , Kirb., ♀.   |
| 6. <i>Saccharissa contingens</i> , Walk., ♂.     | 12. <i>Scandria meridionalis</i> , Kirb., ♀. |

\* *S. Murrayi*, Kirby, Ann. & Mag. Nat. Hist. (5) xiii. p. 403 (1884), from Tongatabu.



SPECIES OF CHALCIDIDAE AND TENTHREDINIDAE.